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NOTICE OF ALLOWANCE AND FEE(S) DUE

41972 7590 06/29/2009

LAW OFFICES OF STUART J. FRIEDMAN
28930 RIDGE ROAD
MT. AIRY, MD 21771

EXAMINER

PHAM, LUU T

ART UNIT

PAPER NUMBER

2437

DATE MAILED: 06/29/2009

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/508,840

03/08/2005

Christophe Genevois

740612-187

9829

TITLE OF INVENTION: SELECTIVE MULTIMEDIA DATA ENCRYPTION

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | YES | \$755 | \$300 | \$0 | \$1055 | 09/29/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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|--------------------|
| (Depositor's name) |
| (Signature) |
| (Date) |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/508,840 | 03/08/2005 | Christophe Genevois | 740612-187 | 9829 |

TITLE OF INVENTION: SELECTIVE MULTIMEDIA DATA ENCRYPTION

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|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | YES | \$755 | \$300 | \$0 | \$1055 | 09/29/2009 |

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|-------------|----------|----------------|
| PHAM, LUU T | 2437 | 380-037000 |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

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- ☐ A check is enclosed.
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5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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ART UNIT

PAPER NUMBER

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DATE MAILED: 06/29/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 751 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 751 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

| | | | |
|-------------------------------|------------------------|----------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/508,840 | GENEVOIS, CHRISTOPHE | |
| | Examiner | Art Unit | |
| | LUU PHAM | 2437 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/15/2009 and 03/19/2009.
2. ☒ The allowed claim(s) is/are 40-41, 44-45, 47-48, and 50-65.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|--|---|

DETAILED ACTION

1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this Examiner's Amendment was given in a telephone interview with Applicant's representative, Mr. Stuart Friedman (Reg. No. 24,312) on June, 17 2009. During the telephone conference, Mr. Friedman has agreed and authorized the Examiner to amend Claims 40-65.

Claims

3. Replacing Claims 40-65 as following:
 - **Claim 40**: (Currently amended) A conditional access method wherein digitized multimedia data are transmitted in a continuous transport stream of successive data packets, comprising the steps of, ~~at the generation side~~:
 - selectively forming an encrypted transport stream from a base transport stream by detecting particular data packets within the base transport stream, removing and then encrypting the particular data packets with an event encryption key having a corresponding event decryption key, ~~and~~

inserting the encrypted data packets into the remaining base transport stream at insertion positions ahead in time with respect to the original positions of the particular data packets in the base transport system, and

transmitting the event decryption key to a receiver either with the selectively encrypted data stream or via a mobile telecommunication network prior to broadcasting the multimedia data.

- **Claim 41**: (Currently amended) The method of claim 40, further comprising the step of buffering the non encrypted data packets while the particular data packets are encrypted.
- **Claim 42**: (Canceled).
- **Claim 43**: (Canceled).
- **Claim 44**: (Currently amended) The method of claim 40, ~~comprising the step of transmitting the event decryption key~~ wherein the event decryption key is transmitted in a Digital Video Broadcast ~~DVB~~ (DVB) environment in specific Entitlement Management Messages ~~EMMs~~ (EMMs) protected by a user encryption key, the corresponding user decryption key being provided in the Control Access System ~~CAS~~ (CAS), on a user smart card or on a user Subscriber Identification Module ~~SIM~~ (SIM).

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- **Claim 45:** (Currently amended) The method of claim 40, wherein said encrypted data packets are inserted at positions which are a predetermined number of data packets ahead of their respective original positions.
- **Claim 46:** (Canceled).
- **Claim 47:** (Previously presented) The method of claim 40, wherein the event decryption key is frequently changed.
- **Claim 48:** (Currently amended) The ~~system~~ method of claim 40, wherein the event decryption key is a fixed key distributed on a pay-per-event basis.
- **Claim 49:** (Canceled).
- **Claim 50:** (Currently amended) The method of claim 40, further comprising the step of providing the event decryption key which is encrypted ~~by~~ using a user encryption key, and providing ~~a~~ the corresponding user decryption key to an authorized user.
- **Claim 51:** (Currently amended) The method of claim 40, wherein the encrypting step further comprises the step of producing at a head-end encoder the selectively encrypted data stream, wherein the head-end encoder including a Common Interface CI (CI) that in turn has a smart card SC (SC) interface for a smart card that has encryption circuitry thereon.

- **Claim 52:** (Currently amended) The method of claim 40, wherein the encrypting step comprises the step of producing at a head-end encoder the selectively encrypted data stream, wherein the head-end encoder including a Common Interface ~~CI~~ (CI) for a Personal Computer ~~PC~~ (PC) card module that has encryption circuitry thereon.
- **Claim 53:** (Currently amended) The method of claim 40, wherein the encrypting step further comprises the step of producing at a head-end encoder selectively encrypted data stream, wherein the head-end encoder including a ~~PC~~ (PC) with an interface for a chip card containing an event encryption key or a user encryption key, the encryption being processed in the PC.
- **Claim 54:** (Currently amended) The method of claim 40, wherein the encrypting step further comprises the step of producing at a head-end encoder selectively encrypted data stream, wherein the head-end encoder including an encoder ~~CI~~ module with a Common Interface and Transport Stream ~~CI&TS~~ (CI&TS) interface to a professional Set-Top-Box ~~STB~~ (STB).
- **Claim 55:** (Previously presented) The method of claim 40, wherein the base data transport stream is a clear data stream.
- **Claim 56:** (Previously presented) The method of claim 40, wherein the base transport stream is a DVB-scrambled data stream.

- **Claim 57**: (Previously presented) The method of claim 40, wherein all data packets other than the selectively encrypted data packets are ~~DVB-scrambled~~ Digital Video Broadcast scrambled (DVB-scrambled).
- **Claim 58**: (Previously presented) The method of claim 40, wherein every nth data packet of the transport stream is encrypted, n being a fixed number.
- **Claim 59**: (Previously presented) The method of claim 40, wherein every nth data packet of the transport stream is encrypted, n being a variable number.
- **Claim 60**: (Previously presented) The method of claim 59, wherein the variable number n is randomly variable.
- **Claim 61**: (Previously presented) The method of claim 59, wherein the variable number n is variable as a function of data packet contents.
- **Claim 62**: (Currently amended) The method of claim 40, further comprising the steps of, at the ~~reception~~ receiver side:
 - ~~providing an~~ receiving the event decryption key ~~to~~ by an authorized receiver having a conditional access system,
 - ~~transmitting~~ receiving selectively the encrypted transport stream ~~to~~ by the receiver,
 - detecting the encrypted data packets by the conditional access system,
 - removing the encrypted data packets from the received transport stream,

decrypting the encrypted data packets with the event decryption key, and
inserting the decrypted data packets into the remaining received transport
stream at positions corresponding to the respective original positions of the particular
data packets within the base transport stream.

- **Claim 63**: (Previously presented) The method of claim 62, comprising the step of
storing by the conditional access system into a buffer memory, clear data packets
while decrypting an encrypted data packet.
- **Claim 64**: (Previously presented) The method of claim 62, wherein said conditional
access system includes a chip card with decryption circuitry thereon.
- **Claim 65**: (Previously presented) The method of claim 64, wherein the chip card is a
Subscriber Identification Module (SIM) ~~SIM~~ card.

Specification

4. Amend the specification as following:

- Please insert as a centered heading, at page 1, prior to line 5:

FIELD OF THE INVENTION

- Please insert as a centered heading, at page 1, prior to line 10:

BACKGROUND OF THE INVENTION

Art Unit: 2437

- Please insert as a centered heading, at page 1, prior to line 19:

SUMMARY OF THE INVENTION

- Please insert as a centered heading, at page 3, prior to line 26:

BRIEF DESCRIPTION OF THE DRAWINGS

- Please insert as a centered heading, at page 4, prior to line 20:

DESCRIPTION OF THE PREFERRED EMBODIMENTS

- Page 10, line 1, please delete “Claims” and substitute – CLAIMS –
- Page 17, lines 1, please delete “Abstract” add substitute – ABSTRACT OF THE DISCLOSURE –

Examiner's Statement of reason of Allowance

5. **Claims 40-41, 44-45, 47-48, and 50-65 are allowed.**
6. **The following is an examiner's statement of reasons for allowance:**

The present invention is directed to a method and system for access control of digitized multimedia data wherein a selectively encrypted transport stream is formed from a based transport stream by removing particular data packets, encrypting said particular data packets, and inserting the encrypted data packets into remaining base

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transport stream at insertion positions ahead in time with respect to the original positions of the particular data packets in the base transport stream.

The closest prior art, Candelore (US 2003/0081776) is also generally directed to various aspects of selective encryption; Munger et al., (“Munger” US 6,502,135) and Yoshinari (US 6,567,471) are generally directed to various aspects of re-arrange positions of data packets/frames. However, none of Candelore, Munger, and Yoshinari teaches or suggests, alone or in combination, the particular combination of steps or elements as recited in the independent claim 40. For example, none of the cited prior art teaches or suggest the steps of “inserting the [selective] encrypted data packets into the remaining base transport stream at insertion positions ahead in time with respect to the original positions of the particular data packets in the base transport system;” (emphasis added). Therefore the claims are allowable over the cited prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luu Pham whose telephone number is 571-270-5002.

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The examiner can normally be reached on Monday through Friday, 7:30 AM - 5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel L. Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Luu Pham/
Examiner, Art Unit 2437

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2437